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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,566	03/25/2004	Yuji Okawa	UNIU79.022AUS	7968

20995 7590 12/06/2006

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EXAMINER

PHAM, THANHHA S

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No. 10/809,566	Applicant(s) OKAWA, YUJI	
	Examiner Thanhha Pham	Art Unit 2813	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 20 November 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: 8.  
Claim(s) objected to: none.  
Claim(s) rejected: 6.  
Claim(s) withdrawn from consideration: 2,4,5,7 and 9-17.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_

  
**THANHHA S. PHAM**  
**PRIMARY EXAMINER**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiyama [US 2002/0004288] in view of Jiang et al [US 6,812,064].**

Nishiyama (figs 11's text [0015]-[0016]) discloses a method for manufacturing a semiconductor device comprising steps of:

providing a semiconductor wafer (61, fig 11C) having a ground or polished surface activated in a grinding or polishing step (*the ground or polished surface of the semiconductor wafer 61 is inherently activated by chemical and/physical means of process of grinding or polishing*);

deactivating the ground or polished surface (text [0015]: *cleaning the LSI wafer 61 after grinding and polishing would inherently deactivate the ground or polished surface of the semiconductor wafer 61 -- preventing/stopping the ground or polished surface of the semiconductor wafer from active to contamination*);

adhering a dicing sheet (64, fig 11D, text [0016]) to the deactivated ground or polished surface of the semiconductor wafer; and

dicing the dicing sheet-adhered semiconductor wafer (fig 11E, text [0016]).

Nishiyama substantially discloses the claimed method including deactivating the ground or polished surface of the semiconductor wafer – preventing the ground or

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polished surface of the semiconductor wafer from contamination. Nishiyama does not expressly teach teaching blowing ozone on the ground or polished surface of the semiconductor wafer for the deactivating step.

However, Jiang et al (cols 2-6) teaches blowing ozone on the ground or polished surface of the semiconductor wafer for the deactivating step – preventing the ground or polished surface of the semiconductor wafer from active to contamination caused by picking unwanted particles in production process step (col 2 lines 44-46, col 4 lines 17-21, col 6 lines 26-35: blowing ozone for preventing unwanted stickiness to the ground or polished surface of the semiconductor wafer).

Therefore, at the time of invention, it would have been obvious for those skilled in the art to modify process of Nishiyama by blowing ozone on the ground or polished surface of the semiconductor wafer as being claimed, per taught by Jiang, to provide a clean semiconductor wafer by preventing the semiconductor wafer from picking unwanted contaminant for a better manufacturing semiconductor device process.

### ***Response to Arguments***

2. Applicant's arguments filed 11/20/2006 has been fully considered but they are not persuasive.

► Contradict to Applicant's argument that Jiang states nothing about a silicon oxide layer preventing the semiconductor wafer from picking up unwanted contaminant, Jiang does teach the silicon oxide layer prevents the semiconductor wafer from picking up unwanted contaminant since the silicon oxide layer protects the semiconductor wafer

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and prevents unwanted stickiness to the ground or polished surface of the semiconductor wafer.

► In regarding to Applicant's argument that it is not obvious to combine the teaching of Jiang to the Nishiyama process since Nishiyama does not suggest that cleaning the wafer should be performed by chemical modifying. The argument is not persuasive since Examiner combines the teaching of Jiang based on deactivating step not cleaning by removing unwanted matter.

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhha Pham whose telephone number is (571) 272-1696. The examiner can normally be reached on Monday and Thursday 9:00AM - 9:30PM.

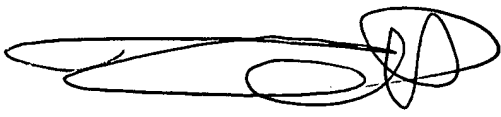
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TSP

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